

I. Amendments to the Claims

This listing of claims replaces without prejudice all prior versions and listings of claims in the application:

Listing of Claims:

Claims 1-17 (Cancelled)

18. (New) A cerebral spinal fluid pressure measurement catheter, comprising:

a narrow end configured for insertion through a puncture into the subarachnoid space within a lumbar spinal dura; and

an outer surface of said cerebral spinal fluid pressure measurement catheter forming a lumbar spinal dura pressure seal at the puncture between an exterior of said catheter and an interior of the lumbar spinal dura;

said outer surface of said cerebral spinal fluid pressure measurement catheter tapering continuously from said narrow end to said seal, to cause cerebral spinal fluid pressure to be retained inside the lumbar spinal dura.

19. (New) The catheter of claim 18, wherein said narrow end is less than 14 gauge, and wherein said seal is greater than 14 gauge.

20. (New) The catheter of claim 18, wherein said catheter outer surface has an infection resistant layer thereon.

21. (New) The catheter of claim 18, wherein said catheter outer surface has an adhesion resistant layer thereon.

22. (New) The catheter of claim 18, wherein a length of said catheter is from two to eight inches.

23. (New) The catheter of claim 18, wherein said outer surface of said catheter tapers continuously throughout the length of the catheter.

24. (New) The catheter of claim 18, wherein the continuous taper from said narrow end to said seal is configured such that said narrow end remains within the cerebral spinal fluid when the pressure seal is formed.

25. (New) A cerebral spinal fluid catheter, comprising:

a distal end configured for insertion through a puncture in the lumbar spinal dura into the cerebral spinal fluid-containing subarachnoid space therewithin, said distal

end being less than 14 gauge;

a proximal end wider than said distal end; and

an intermediate portion disposed between said distal end and said proximal end, said intermediate portion being greater than 14 gauge, said spinal catheter being uniformly tapered from said distal end to said intermediate portion, said intermediate portion being configured to form a lumbar spinal dura seal at the puncture between an exterior of said catheter and an interior of the lumbar spinal dura to cause cerebral spinal fluid pressure to be substantially retained inside the lumbar spinal dura.

26. (New) The catheter of claim 25, wherein said catheter outer surface has an infection resistant layer thereon.

27. (New) The catheter of claim 25, wherein said catheter outer surface has an adhesion resistant layer thereon.

28. (New) The catheter of claim 25, wherein a length of said catheter is from two to eight inches.

29. (New) The catheter of claim 25, wherein said outer surface of said catheter tapers continuously throughout the length of the catheter.

30. (New) The catheter of claim 25, wherein the continuous taper from said narrow end to said seal is configured such that said narrow end remains within the cerebral spinal fluid when the pressure seal is formed.

31. (New) A cerebral spinal fluid kit, comprising:
a hollow needle configured to form a puncture in the lumbar spinal dura of a patient;

a guidewire configured to be inserted through the interior of the needle, through the puncture in the lumbar spinal dura, and into the subarachnoid space therewithin, said guidewire and said needle being configured such that said needle can be withdrawn from said guidewire after said guidewire is inserted into the subarachnoid space within the lumbar spinal dura; and

a cerebral spinal fluid catheter, including:

(i) a distal end configured for insertion through the puncture in the lumbar spinal dura into the cerebral spinal fluid-containing subarachnoid space therewithin, said distal end being narrower than the puncture;

(ii) a proximal end wider than said distal end; and

(iii) an intermediate portion disposed between said distal end and said proximal end, said intermediate

portion being greater than said puncture, said spinal catheter being uniformly tapered from said distal end to said intermediate portion, said intermediate portion being configured to form a lumbar spinal dura seal at the puncture between an exterior of said catheter and an interior of the lumbar spinal dura to cause cerebral spinal fluid pressure to be substantially retained inside the lumbar spinal dura.

32. (New) A cerebral spinal fluid kit according to Claim 31, further comprising a Leur hub configured to be coupled to a portion of the cerebral spinal fluid catheter outside of the patient's skin.

33. (New) A cerebral spinal fluid kit according to Claim 31, wherein said hollow needle comprises a Touhy needle.

34. (New) A cerebral spinal fluid kit according to Claim 31, further comprising:

local anesthetic;

sutures;

a dressing;

a syringe.

35. (New) A cerebral spinal fluid kit according to Claim 31, wherein said catheter has an outer surface with an infection resistant layer thereon.

36. (New) A cerebral spinal fluid kit according to Claim 31, wherein said catheter has an outer surface with an adhesion resistant layer thereon.

37. (New) A method of installing a cerebral fluid catheter into the lumbar spinal dura of a patient, comprising the steps of:

puncturing the lumbar spinal dura of a patient with a hollow needle to form a puncture;

inserting a guidewire through the interior of the needle, through the puncture in the lumbar spinal dura, and into the subarachnoid space therewithin;

withdrawing the needle from the guidewire; and

installing a cerebral spinal fluid catheter over the guidewire into the subarachnoid space within the the lumbar spinal dura, said catheter having a distal end and a proximal end, said installing step including the substeps of:

(i) installing the distal end of the catheter through the puncture in the lumbar spinal dura into the cerebral spinal fluid-containing subarachnoid space therewithin, said distal end being narrower than the puncture;

(ii) continuing to install the distal end of the catheter through the puncture until an intermediate portion of the catheter disposed between said distal end and said proximal end forms a lumbar spinal dura seal with said puncture, said catheter being uniformly tapered from said distal end to said intermediate portion, said intermediate portion forming a lumbar spinal dura seal at the puncture between an exterior of said catheter and an interior of the lumbar spinal dura to cause cerebral spinal fluid pressure to be substantially retained inside the lumbar spinal dura.